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(19) **United States**(12) **Patent Application Publication****Zadesky et al.**(10) **Pub. No.: US 2015/0326959 A1**(43) **Pub. Date: Nov. 12, 2015**(54) **LIQUID EXPULSION FROM AN ORIFICE**(52) **U.S. Cl.**CPC **H04R 1/00** (2013.01)(71) Applicant: **Apple Inc.**, Cupertino, CA (US)(72) Inventors: **Stephen P. Zadesky**, Cupertino, CA (US); **Fletcher R. Rothkopf**, Cupertino, CA (US); **Ashley E. Fletcher**, Cupertino, CA (US)(57) **ABSTRACT**

A device having one or more an acoustic modules. The acoustic module includes an acoustic element and a cavity that is acoustically coupled to the acoustic element. The module also includes a first conductive element that is configured to generate a first surface charge on a first region of an interior surface of the cavity. A second conductive element is configured to generate a second surface charge on a second region of the interior surface of the cavity. The first and second charge on the first and second regions of the interior surfaces of the cavity may be selectively applied to facilitate movement of a liquid held within the cavity.

(73) Assignee: **Apple Inc.**, Cupertino, CA (US)(21) Appl. No.: **14/275,065**(22) Filed: **May 12, 2014****Publication Classification**(51) **Int. Cl.**
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